



SCIENCE



Written by :
Ritu Jain

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New Edition

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Preface

Today's children will spend their adult lives in a multitasking, multifaceted, technology driven, diverse vibrant world, and thus they must arrive equipped to do so effectively.

This new edition of 'Science' has been completely prepared in accordance with National Curriculum framework. The most important aim of this series is to develop scientific attitude in children rather than providing information.

To fulfill our aim, the books are produced in large format, in full colour with attractive illustrations to enhance visual appeal. We hope that our attempt has been successful and a small step towards imparting necessary quality education to our children. Change is a way of life and our endeavour is to continue to evolve the series into a better product. Suggestions and comments are encouraged.

—Publisher



WALKTHROUGH

ACTIVITY

Various activities given in between text to strengthen the knowledge of the concept learned by the student.

Animals And Their Feeding Habits 3

All living things need food to live. Plants make their own food. Animals depend directly or indirectly upon plants for their food. Animals eat either plants or other animals.

Different animals eat different kinds of food. Their methods of eating food are also different.

Some animals eat only plants and are known as **herbivores**. Cows, horses, rabbits and giraffes are herbivorous animals.

Some animals only eat the flesh of other animals. They are known as **carnivores**. Tigers, lions, wolves and snakes are carnivorous animals.

Some animals eat plants as well as the flesh of other animals. They are called **omnivores**. Bears, crows, dogs and humans are omnivorous animals.

Activity
Bring pictures of twelve animals. Classify the pictures into three groups : herbivore, carnivore and omnivore. Paste them under suitable headings in your notebook.

TEST YOUR SELF

Questions based on the matter to strengthen the knowledge.

THE STEM AND ITS FUNCTIONS

The stem of a plant is above the soil. In herbs, it is green and soft. In trees, it is hard and woody. The creepers have weak stems.

Green and soft stem Hard and woody stem Weak stem

Uses of Stem

- The stem keeps the plants erect.
- It carries water and minerals from the roots to other parts of the plants.
- It bears leaves, flowers, fruits and seeds.
- It also carries food prepared by the leaves to other parts of the plant.

Test your Self

- Name two kinds of Root.
- How is the stem in trees ?
- What is called the new plant grow from a seed ?

EXERCISE TIME

Objective and subjective questions included under various segments.

Living things Breathe

Breathing is the process of inhalation and exhalation. The process of taking in oxygen from air is called **Inhalation** and releasing carbon dioxide is called **Exhalation**.

All living things breathe. Human beings breathe through lungs. Fish breathe through gills. Insects breathe through small holes present on their body called **Spiracles**. Plants breathe through small holes on their leaves called **Stomata**.

Non-living things do not breathe.

Do You Know ?
Difference between Respiration and Breathing:
Respiration refers to the process of passing gaseous substance in the blood in human and animals. On the other hand, breathing is the process that moves air in and out of the lungs. The air that is moved in, is oxygen while the air that is moved out is carbon-dioxide.

Living things Move

All living things show movement. Human beings and animals move from one place to another while plants show movement in some of their parts only. For example, cat, dog, horse and human beings move here and there in search of food, water and shelter.

Plants like 'Touch-Me-Not' show movement upon touching and sunflower turns towards the sun.

Non-living things do not move by themselves.

• A house should have proper drains to take away the dirty water from the kitchen, toilet and bathroom.

EXERCISE TIME

A. Multiple choice questions (MCQs).
Tick (✓) the correct option :

- Everybody needs a _____ to live in.
a. tent b. hut c. home
- A house should have _____ surroundings.
a. dirty b. clean c. crowded
- Grow _____ around the house.
a. thorns b. plants c. vegetables

B. Fill in the blanks :

- Everybody _____ a home to live in.
- We see various types of _____ around us.
- A good house should have thick _____ for safety.
- A good house should have proper _____ for washing and bathing.

C. How do we use these rooms ?

- Drawing room : _____
- Kitchen : _____
- Bathroom : _____
- Bedroom : _____
- Dinning room : _____

D. Look at the following pictures and write their names :

DO YOU KNOW?

Extra information to the concept related.

KNOW THE KEYWORDS

Detail meaning about some difficult words.

The Ears
Our ears record the sound and send messages to the brain. The brain recognises the sound and tells us about it.

The Tongue
Our tongue records the message and sends it to the brain. The brain recognises it and sends messages about it.

The Skin
Through the skin, we feel pleasure, pain and differences. Different pores of skin give us different feelings. Different spots on the skin make us feel heat and cold. All this requires contact of the skin with the brain.

Thus, all our sense organs work with the help of the brain. Different parts of the brain receive messages from different sense organs.

Know the Keywords

- Skeleton** : A structure of bones.
- Tissue** : A group of special cells performing the same function.
- Nerve** : A bundle of fibres carrying messages to any body part from the brain.
- Blood Vessels** : Tubes that carry blood to different parts of the body.
- Breathing** : The process of taking air into our lungs and releasing it out through nose or mouth.

Point to Remember

- The human body is a fascinating machine.
- It is made up of cells, tissues, different organs and organ systems.
- The sense organs make us feel or sense the things around us.
- The skeleton system gives shape and supports to the body.
- Muscles along with bones, help the body and its parts to move.
- The digestive system makes the food ready for us by the body.
- The breathing system supplies oxygen to all parts of the body.

Point to Remember

- Living things have certain features that make them alive. Living things can grow, eat, breathe, move, feel and reproduce. They also grow old and die.
- Plants and animals are living things.
- Human beings are living things too.

EXERCISE TIME

A. Tick (✓) the correct option :

- Human beings breathe through _____
a. gills b. stomata c. lungs
- Which of these is a natural non-living thing?
a. paper b. frog c. stone
- Which one of these gives birth to young ones?
a. hen b. human being c. fish
- Fishes use their _____ to breathe in oxygen.
a. lungs b. wings c. gills

B. Fill in the blanks :

- Plants breathe through tiny pores called _____ (stomata/fins)
- Living things require _____ for energy. (food/air)
- Human beings, animals and plants are all _____ things. (non-living/living)
- While breathing we take in a gas called _____. (oxygen/belium)

C. Write 'T' for true and 'F' for false against each statement :

- All living things breathe, feel, grow and reproduce.
- Non-living things show movement on their own.
- Birds lay eggs for producing their young ones.
- Sun, moon and stars are natural things.

POINT TO REMEMBER

Consolidated concepts of the chapter.

ACTIVITY TIME

Various activities to strengthen the knowledge of the concepts learnt by the student.

4. Name the homes made by man for the following animals :
a. Cow _____ b. dog _____ c. Horse _____

Activity Time

- Make a clay bird
- Take some clay.
- Make it into a shape of a bird.
- Collect different feathers.
- Stick the feathers you have collected.
- Let the bird dry in the sun.
- Colour your bird.

Creative Work

- Collect pictures of various animals and paste them in your scrapbook/fair book. Write their names and places where they live.
- Collect the pictures of five grass-eating, flesh-eating and grain-eating animals and paste them in your scrapbook.

- A feather is a live part.
- There are four kinds of feathers.
- A hen has three toes in front and one short toe at the back.

D. Name two birds of the following :


- Flesh-eating birds _____
- Swimming birds _____
- Climbing Birds _____
- Wading birds _____
- Perching birds _____

E. Answer the following questions :

- Name the three types of feathers. How do they help a bird ?
- How do these help a bird fly : (i) body shape (ii) bones (iii) wings (iv) tail
- What kind of beaks do most grain-eating birds have ?
- What is the function of the holes in the beak of a duck ?
- What is a web called ?

Creative Work

- Try to identify the bird by its claws and feet :



- Draw the picture of a bird in your notebook and label all its body parts.

Some creative work to increase the creativity of the student.

CREATIVE WORK



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